

AMENDMENT TO THE CLAIMS

Claims 18 and 23 are amended herein. The following replaces all prior versions and listings of the claims:

1. (Original) A method, comprising:

operating an internal combustion engine in response to a throttle signal provided with an operator-adjusted throttle control;

generating an idle status signal corresponding to an idle position of the operator-adjusted throttle control;

detecting a failure of the throttle signal; and

incrementally adjusting an amount of fuel provided to the engine as a function of the idle status signal and the rotational speed of the engine in response to the failure.
2. (Original) The method of claim 1, which includes powering a ground traveling vehicle with the engine and sensing brake status of the vehicle and wherein said incrementally adjusting includes determining the amount of fuel as a function of the brake status.
3. (Original) The method of claim 2, wherein said incrementally adjusting includes determining the amount of fuel as a function of a vehicle speed value.

4. (Original) The method of claim 1, wherein the throttle control includes an operator adjustable pedal and a sensor to provide the throttle signal and a switch corresponding idle position of the pedal to provide the idle status signal.
5. (Original) The method of claim 1, wherein the throttle control includes an operator adjustable pedal and a set of rotary sensors to determine the throttle signal and the idle status signal.
6. (Original) The method of claim 1, which includes fueling the engine after the failure in response to an operator fueling control different from the throttle control.
7. (Original) The method of claim 1, which includes:
 - powering motion of the vehicle with the engine;
 - increasing speed of the vehicle by increasing the fuel amount provided by said incrementally adjusting in response to a nonidle position of the throttle control being indicated by the idle status signal; and
 - decreasing speed of the vehicle by reducing the fuel amount provided by said incrementally adjusting in response to an idle position of the throttle control being indicated by the idle status signal.
8. (Original) The method of claim 4, which includes:
 - regulating the engine in accordance with an engine speed governor when a vehicle speed exceeds a predefined threshold.

9. (Original) A method, comprising:

moving a ground traveling vehicle with an internal combustion engine in response to a first operator-adjusted fueling control;

detecting a failure of the first operator-adjusted fueling control;

after the failure, adjusting operation of the engine in response to the first operator-adjusted fueling control to limit vehicle speed; and

operating the engine after the failure in response to a second operator-adjusted fueling control to selectively move the vehicle at a greater speed than permitted with the first operator-adjusted fueling control.

10. (Original) The method of claim 9, wherein the first operator-adjusted fueling control includes a throttle control arrangement with a pedal and at least one sensor to sense a range of nonidle positions of the pedal.

11. (Original) The method of claim 9, wherein the second operator-adjusted fueling control includes a cruise control for a vehicle.

12. (Original) The method of claim 9, wherein said adjusting includes fueling the engine after the failure in response to the first operator-adjusted fueling control in accordance with an idle status indication and rotational engine speed.

13. (Original) An apparatus, comprising:

a ground traveling vehicle;

an internal combustion engine operable to power motion of the vehicle;
a throttle control responsive to an operator of the vehicle;
a cruise control responsive to the operator of the vehicle;
a vehicle speed sensor; and
a controller responsive to the throttle control to regulate fueling of the engine,
the controller being operable to detect a throttle control failure and regulate engine
operation with the throttle control in an accommodation mode in response to the failure,
the controller being responsive to operator input with the cruise control and the vehicle
speed sensor to permit the engine to power the vehicle at a speed greater than with the
throttle control during the engine operation in the accommodation mode.

14. (Original) The apparatus of claim 13, wherein the throttle control includes an
operator adjustable pedal and means for sensing position of the pedal.

15. (Original) The apparatus of claim 13, wherein the throttle control includes a set
of sensors redundantly registering a range of nonidle positions of an operator adjustable
pedal.

16. (Original) The apparatus of claim 13, wherein the controller includes a signal
corresponding to a maximum vehicle speed in response to the throttle control while
operating in the accommodation mode.

17. (Original) The apparatus of claim 16, wherein the controller includes means for performing the accommodation mode as a function of rotational speed of the engine, brake status of the vehicle, and idle status of the vehicle.

18. (Currently Amended) A method, comprising:

operating a vehicle including an internal combustion engine fueled in accordance with an operator-adjusted throttle control;

registering at least a portion of a range of multiple nonidle positions of the operator-adjusted throttle control with each of two or more sensors;

detecting a failure of one of the sensors;

determining an idle status of the throttle control after the failure; and

fueling the engine based on a limp-home mode of operation in accordance with the idle status and the rotational speed of the engine.

19. (Original) The method of claim 18, wherein the limp-home mode of operation includes determining said fueling as a function of the idle status, rotational speed of the engine, and brake status of the vehicle.

20. (Original) The method of claim 18, which includes operating the vehicle at a speed greater than permitted by the limp-home mode of operation in response to activation of a cruise control by an operator.

21. (Original) The method of claim 18, wherein the limp-home mode of operation includes increasing speed of the vehicle by incrementally increasing fuel provided to the engine during a nonidle position of the throttle control indicated by the idle status and decreasing the speed of the vehicle by reducing the fuel for an idle position of the throttle control indicated by the idle status.

22. (Original) The method of claim 18, which includes regulating the engine in accordance with a speed governor when vehicle speed exceeds a predetermined threshold.

23. (Currently Amended) An apparatus, comprising:

an internal combustion engine;

a throttle control arrangement including an operator adjustable pedal and a set of sensors to redundantly sense at least a portion of a range of multiple nonidle positions of the pedal; and

a controller responsive to the set of sensors to determine a engine fueling signal corresponding to position of the pedal and an idle status signal representative of idle position status of the pedal, the controller being operable to detect a failure of the throttle control arrangement and control the engine in a failure accommodation mode in response, the controller generating the engine fueling signal as a function of the idle status signal and the rotational speed of the engine during the failure accommodation mode of operation.

24. (Original) The apparatus of claim 23, further comprising:

a vehicle carrying the engine, the throttle control, and the controller, the engine powering motion of the vehicle;

an operator adjustable cruise control to select a desired cruise speed of the vehicle;

wherein said controller is responsive to an operator input provided with the cruise control to permit the engine to power the vehicle at a greater speed than with the throttle control during the control of the engine in the failure accommodation mode.

25. (Original) The apparatus of claim 23, further comprising a vehicle carrying the engine, the throttle control, and the controller; and wherein the controller includes means for performing the accommodation mode as a function of rotational speed of the engine and brake status of the vehicle.

26. (Original) An apparatus, comprising:

an internal combustion engine for powering a ground traveling vehicle;

a throttle control arrangement including means for sensing position of an operator adjustable pedal to provide a throttle control signal;

a first sensor to sense rotational speed of the engine;

a second sensor to sense brake status of the vehicle;

means for determining a failure of the throttle control signal; and

means for operating the engine in a limp-home mode in response to the failure, said operating means including means for fueling the engine during the limp-

home mode of operation in accordance with idle position of the pedal, the rotational speed of the engine, and the brake status.